

BRUHAT BANGALORE MAHANAGARA PALIKE, YELAHANKA ZONE
Executive Engineer, Byatarayanapura Division, B.B.M.P., Bangalore - 92

BILL OF QUANTITIES (BOQ) for Improvements to roads, drains, footpaths and park in ward no. 08
(Estimated cost Rs.1010.00 lakhs)

(Package consists of 11 works) 1) Improvements to road, drain and footpath in Lottegollahalli main road and cross roads in Ward No. 8 Kodigehalli, 2) Improvements to road, drain and footpath in main road and abutting cross roads of Maruthinagara 2nd stage in Ward No. 8 Kodigehalli, 3) Improvements to road, drain and footpath in Kannuramma main road and abutting cross roads in Ward No. 8 Kodigehalli, 4) Improvements to Roads and Drains from National Highway (Airport Road) near Military farm upto Amco Layout in Kodigehalli in Ward No. 8, 5) Improvements to road, drain and footpath along railway parallel road and cross road in Ward No. 8 Kodigehalli, 6) Improvements to road, drain and footpath in main road and abutting cross roads of Maruthinagara 1st stage in Ward No. 8 Kodigehalli, 7) Improvements to road, drain and footpath in 5th cross road abutting cross road of Tatanagar in Ward No. 8 Kodigehalli, 8) Improvements to road, drain and footpath in Devinagara main road and cross roads in Ward No. 8 Kodigehalli, 9) Development and improvements to parks in CQAL layout and sahakaranagara in Ward No. 8 Kodigehalli 10) Improvements to road, drain and footpath in main and cross roads of Kodigehalli in Ward No. 8 Kodigehalli 11) Improvements to road, drain and footpath in LKR nagara main road and cross roads in Ward No. 8 Kodigehalli.

Sl. No.	Quantity.	Description	Unit	Rates	
				In Figures	In Words
1	73.60	KSRRB M200-13.1. Dismantling of existing structures like culverts, Bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications. II. By mechanical means, A. Cement concrete Grade M-15 & M-20 (P.No.136, L.No.18.20 of PW,P&I WTD SR 2016-17)	Cum	466.2	Rupees Four Hundred Sixty Six and Twenty Paise Only
2	10125.29	Removing & Refixing Stone slabs of drains and Pointing in C.M(1:3) (P.No.25, L.No.5.33 of PW, P&I WTD SR 2016-17)	Sqm	80.56	Rupees Eighty and Fifty Six Paise Only
3	2231.91	Removing and Resetting of Footpath Slab	Sqm	132.50	Rupees One Hundred Thirty Two and Fifty Paise Only
4	16048.83	KSRRB M300-1. Earth work excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5m, excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specification. MORTH / Chapter 3	Cum	192.92	Rupees One Hundred Ninety Two and Ninety Two Paise Only
5	842.36	KSRB 4-1.2: Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.892 cum and fine aggregates @ 0.465 cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KRS 4.1.4.2	Cum	5348.76	Rupees Five Thousand Three Hundred Forty Eight and Seventy Six Paise Only


E.E. (S&D) DMV

No.	Quantity.	Description	Unit	Rates	
				In Figures	In Words
6	1600.67	Providing laying plain/ reinforced cement concrete M20 Grade for Box Drain walls of thickness 10cm to 20cm including centering shuttering for work etc. complete as per approved drawing and design MORTH specification No. 1500, 1700, 2200. (P.No.258, I.No.37.59.2 of PW, P&I WTD SR 2016-175)	Cum	11032.48	Rupees Eleven Thousand Thirty Two and Forty Eight Paise Only
7	76.55	KSRB 4-6.1: Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specifications. Specification No. KBS 4.6.2	Sqm	244.86	Rupees Two Hundred Forty Four and Eighty Six Paise Only
8	551.16	KSRB 4-6.4: Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surfaces such as walls at any thickness, including attached pilasters, buttresses, plinth and string courses cost of all materials, labour complete as per specifications. Specification No. KBS 4.6.2	Sqm	310.58	Rupees Three Hundred Ten and Fifty Eight Paise Only
9	238.30	Providing and laying cement concrete using 20mm and downsize granite coarse aggregates and fine aggregates of ready mixed concrete (RMC) for RCC works laid in 15cms thick layers and well compacted vibrating, curing, finishing with necessary cement mortar, with all lead and lifts etc., complete (exclusive of cost of steel and fabrication charges) Ready Mixed Cement Concrete M 20 for Raft foundation, Column, Footing, main and secondary beams.	Cum	6231.74	Rupees Six Thousand Two Hundred Thirty One and Seventy Four Paise Only
10	89.33	KSRB - 4.9.2: Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, palcing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. KBS 4.6.3	Tonnes	59413.00	Rupees Fifty Nine Thousand Four Hundred Thirteen Only
11	3672.20	Providing granite Slabs of Selected quality roughly dressed and fixed in cement mortar (1:6) including fixing curing etc., Complete. 10cms thick	Sqm	825.74	Rupees Eight Hundred Twenty Five and Seventy Four Paise Only
12	10164.00	KSRB 5-9 : Providing chamfering edges to stone slab 2.5 cms. wide as per specifications, (only chamfered length shall be recorded) KBS 5.1.13 (P.No.24, I.No.5.22 of PW, P&I WTD SR 2016-17)	Rmtr	37.10	Rupees Thirty Seven and Ten Paise Only
13	3079.50	Providing One line dressing to granite stone slab/ granite stone masonry as per specification (P.No.23, I.No.5.17 of PW, P&I WTD SR 2016-17)	Sqm	577.70	Rupees Five Hundred Seventy Seven and Seventy Paise Only
14	181.27	KSRB 5.2-3: Providing and constructing granite size stone masonry in foundation cement mortar 1:6, stone hammered dressed in courses not less than 20cms high, bond stones at 2m. apart in each course including cost of materials, labour, curing complete as per specifications. Specification No. KBS 5.1.13.	Cum	4438.22	Rupees Four Thousand Four Hundred Thirty Eight and Twenty Two Paise Only
15	584.00	KSRB 5-11 : Providing and constructing load bearing wall with solid concrete blocks of size 400x150x200 mm having block density not less than 1800 kg/m3 and having a minimum average compressive strength 4.00 N/mm2 conforming to IS 2185 (Part) : 2005 and constructed with CM 1:4 , as per IS 2572:2005 including cost of all materials, labour charegs, scaffolding, curing complete as per specifications. KBS No.5.4(P.No.25, I.No.5.34 of PW, P&I WTD SR 2016-17)	Sqm	961.42	Rupees Nine Hundred Sixty One and Forty Two Paise Only

Sl. No.	Quantity.	Description	Unit	Rates	
				In Figures	In Words
16	421.25	KSRB 15.1.1 Providing flush pointing to square rubble, course or uncoursed stone masonry with cement mortar 1:3, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour, curing complete as per specifications.	Sqm	102.82	Rupees One Hundred Two and Eighty Two Paise Only
17	124.71	KSRB 4-1.6: Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.459 cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation and plinth, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KRS 4.1.4.2	Cum	5767.46	Rupees Five Thousand Seven Hundred Sixty Seven and Forty Six Paise Only
18	123.80	KSRB M400-19: Construction of Median and island above road level with approved material deposited from borrowpits, spread, sloped and compacted as per Clause 400.7 complete as per specifications. MORTH Specification No.407	Cum	208.82	Rupees Two Hundred Eight and Eighty Two Paise Only
19	1744.00	Providing and laying/fixing cement base, precast, pre polished cement concrete, designer tiles 25mm thick conforming to IS 1237 heavy duty tiles for flooring, treads of steps and landing, laid on a bed of 12mm thick cement mortar 1:3 mix finished with flush pointing using white cement, including cost of materials, including cutting, griding the edge to half/full round wherever required, labour, curing complete as per specification.(P.No.109, I.No.14.62 of PW,P&I WTD S.R 2016-17))	Sqm	1150.10	Rupees One Thousand One Hundred Fifty and Ten Paise Only
20	4131.99	Providing and fixing RCC Precast cover slab of 100mm thick for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)	Sqm	1698.00	Rupees One Thousand Six Hundred Ninety Eight Only
21	564.90	Providing and fixing RCC Precast cover slab of 250mm thick for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)	Sqm	4764.00	Rupees Four Thousand Seven Hundred Sixty Four Only
22	6690.00	Providing and fixing Pre cast solid concrete kerb stones made out of CC 1:2:4 with top and bottom width 114 and 165mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting, including formwork, curing, including cost of all materials, labour, hire charges of machinery, loading, unloading, lead and lift, transportation etc., complete	Nos	331.78	Rupees Three Hundred Thirty One and Seventy Eight Paise Only
23	504.00	Removing and Resetting of Kerb Stones	mtr	65.72	Rupees Sixty Five and Seventy Two Paise Only
24	1592.75	KSRB 800-1. Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8	Sqm	63.60	Rupees Sixty Three and Sixty Paise Only
25	2389.63	KSRB M300-14. Excavation for roadwork in soil with hydraulic excavator of 0.90 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to embankment location and complete as per specifications. MORTH Specification No.301	Cum	154.76	Rupees One Hundred Fifty Four and Seventy Six Paise Only

Sl. No.	Quantity.	Description	Unit	Rates	
				In Figures	In Words
26	1375.36	KSRRB M 400-17, Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage ' of mixed Material by tipper to site, laying in uniform layers with paver in sub- base/ base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406	Cum	1768.08	Rupees One Thousand Seven Hundred Sixty Eight and Eight Paise Only
27	5510.44	KSRRB M 500-6, Providing and applying primer coat with SS bitumen emulsion on prepared surface of granular Base such as WBM WMM including clearing of road surface and spraying primer at the rate of 0.60 kgsqm using mechanical means complete as per specifications. As per MORTH specification clause No. 502	Sqm	27.56	Rupees Twenty Seven and Fifty Six Paise Only
28	51151.79	KSRRB 500-2: Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatment including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Spec, Chapter 5	Sqm	3.18	Rupees Three and Eighteen Paise Only
29	79163.61	KSRRB M500-7 : Providing and applying tack coat using 80/100 grade bitumen (VG10) on prepared black topped surfaces at 2.5 Kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH / Chapter 5	Sqm	11.66	Rupees Eleven and Sixty Six Paise Only
30	1234.01	KSRRB M500-16. Providing and laying dense bituminous macadam 50-75mm compacted thickness with 4.5% VG-30 Bitumen using 40/60 TPH capacity H.M.P, using crushed aggregates of grading II, premixed with VG 30 grade bituminous binder and transporting the hot mix to work site, laying with mechanical paver to the required grade level and alignment rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH table 500-10, complete in all respects complete as per specification MORTH specification No. 507	Cum	6435.26	Rupees Six Thousand Four Hundred Thirty Five and Twenty Six Paise Only
31	2297.71	KSRRB M500-19. Providing and laying bituminous concrete 40 mm compacted thickness with VG30 Bitumen grade using 40-60 HMP using crushed aggregates of grading II, premixed with bituminous binder at 5.4% of mix and filler, transporting the hot mix to work site, laying with a mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H specification clause No. 500.9 complete in all respects as per specifications. MORTH Specification No. 509	Cum	7270.54	Rupees Seven Thousand Two Hundred Seventy and Fifty Four Paise Only
32	2694.58	KSRRB M800-13. Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803	Sqm	542.72	Rupees Five Hundred Forty Two and Seventy Two Paise Only
33	160.20	Cement concrete pavement. Construction of un-reinforced plain cement concrete pavement, thickness as per design, over a prepared sub base with OPC cement or any other type as per clause 1051.2.2 with 25mm and down size graded granite metal coarse aggregate	cum	5508.82	Rupees Five Thousand Five Hundred Eight and Eighty Two Paise Only

Sl. No.	Quantity.	Description	Unit	Rates	
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34	1068.00	Vacuum de-watering with vacuum pump and suction mat and compaction with skin floater clubbed with floating disc including cost of generator, HOM of machinery, Screed Vibratory, Power Floater, blade and disc etc., with all lead and lift.(P.No.174, I.No.22.	Sqm	95.40	Rupees Ninety Five and Forty Paise Only
35	76.00	Providing groove cutting to concrete pavement for width of 5mm to 10mm and depth 80mm - 100mm including cost of cutting machine, generator & HOM of machinery, including cost of blade, coolant, etc., including cleaning of grove & providing sand and hot bit	Rmtr	121.90	Rupees One Hundred Twenty One and Ninety Paise Only
36	35.64	Providing and fixing M S Grating	Sqm	6647.00	Rupees Six Thousand Six Hundred Forty Seven Only
37	2573.70	KSRRB M2600-5.(iv) Providing and filling joint sealing compound as per drawings and technical specifications with coarse sand and 6 per cent bitumen by weight complete as per specifications MORTH Specification No. 2605(P.No.243, I.No.31.5 of P.W.P.&I.W.T.D. S.R.2016-17)	Rmtr	24.38	Rupees Twenty Four and Thirty Eight Paise Only
38	80.00	Providing Rainwater harvesting pits for Drains	Each	21000.00	Rupees Twenty One Thousand Only
39	2092.20	KSRRB M800-35. Supply and Installation of Moulded Shank Raised Pavement Markers made of polycarbonate and ABS(Acrylonitrile Butadiene Styrene) moulded body and reflective panels with micro prismatic lens capable of providing total internal reflection of the light entering the lens face and shall support a load of 16000kg tested in accordance to specification of category A of MORTH Circular No RW/NH/33023/10-97-Do III Dt 11.06.1997. The Height, width and length shall not exceed 50mm, 100mm, and 102mm and with minimum reflective area of 13 Sqcm on each side and the slope to the base shall be 35 degree. The strength of detachment of the integrated cylindrical shanks, (of diameter not less than 19mm and height not less than 30 mm) from the body is to be a minimum value of 500 kg. Fixing will be by drilling holes on the road for the shanks to go inside, without nails and using epoxy resin based adhesive as per manufacturer's recommendation and complete as directed by the engineer with 2 years warranty for the reflectivity from the original manufacturer is mandatory along with necessary test certification from the certified laboratory.	Nos	359.34	Rupees Three Hundred Fifty Nine and Thirty Four Paise Only
40	16.00	Manufacturing, Supply & Fixing of Retro- Reflection Road name sign board single Arrow size 1.98X0.9m size made out of wide angle cube corner micro prismatic grade sheeting conforming to IRC 67:2010 & type XI standards of ASTM D 4956-09 specifications and fixed over 2mm thick aluminium sheet back support frame of stainless steel supported by 30NB 1.2mm thick stainless steel pipe all around and 65NB 1.5mm thick pipe vertical post (AISI 202 Grade) firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 30cmx30cmx45cm etc.complete. The information message shall be made out of cut out letters in blue colour transparent overlay film as per IRC 67-2010 Guidelines, 7 years pre-qualification warranty for retro reflective sheeting from the original sheeting manufacturer and a certified copy of three years outdoor exposure report from an independent test lab for the product offered shall be submitted by the contractor. The sign board shall be Retro-Reflective Type XL	each	28250.00	Rupees Twenty Eight Thousand Two Hundred Fifty Only

Sl. No.	Quantity	Description	Unit	Rates	
				In Figures	In Words
41	1845.00	KSRRB M300-59.1. Loosening of the ground upto a level of 500mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Table 300-2 for 1:Compacting original ground supporting subgrade, (which includes watering charges & compaction by vibratory roller) MORTH Specification No. 305.3.4(P.No.149, I.No.19.65 of PW,P&IWD S.R 2016-17)	cum	55.12	Rupees Fifty Five and Twelve Paise Only
42	4200.00	KSRRB 300-58. Compaction of original ground with maximum of 6 passes of 8 to 10 tonnes power roller including filling in depression occurring during rolling including cost of all labour, HOM of machinery complete as per specifications. MORTH / Chapter 3(P.No.149, I.No.19.64 of PW,P&IWD S.R 2016-17)	Sqm	5.30	Rupees Five and Thirty Paise Only
43	325.00	KSRRB 500-3. Scarifying existing stone metal layer upto 75mm thick along with their bituminous surface, picking up scarified materials and stacking of old serviceable materials with lead of 100 m. sequential spreading of the salvaged aggregates with fresh aggregates on prepared base and consolidating as per water bound macadam specifications including cost of all labour, HOM of machineries complete as per specifications. MORTH specification clause 501(P.No.161, I.No.19.64 of PW, P&IWD SR 2016-17)	Sqm	92.22	Rupees Ninety Two and Twenty Two Paise Only
44	2229.63	KSRRB M300- Construction of Embankment with Material Gravel/ Murrum. KSRRB M300-53. Construction of embankment with approved material Gravel/Murrum with all lifts and leads, transporting to site, spreading, grading to required slope and compacting to meet requirement Table 300- 2 complete as per specifications.(Including cost of gravel / murrum, watering charges & compaction by vibratory roller to 95% of proctors density) MORTH Specification No. 305(P.No.148, I.No.19.60 of PW, P&IWD SR 2016-17)	Cum	320.12	Rupees Three Hundred Twenty and Twelve Paise Only
45	577.08	Providing granite Slabs of Selected quality roughly dressed and fixed in cement mortar (1:6) including fixing curing etc., Complete. 7.5cms thick (P.No.25, I.No.5.31.1 of PW, P&IWD SR 2016-17)	Sqm	665.68	Rupees Six Hundred Sixty Five and Sixty Eight Paise Only
46	45.00	Providing and making precast seating arrangement including excavation laying pcc M15, providing laying M20 concrete for pedestal and seating slab, fixing of seating slab including all necessary bolt and nuts etc, complete and as per the directions of Engineer in-Charge. (Data Rate)	Nos	2493.00	Rupees Two Thousand Four Hundred Ninety Three Only
47	429.38	Earth work for lowering and levelling the ground other than foundation works by mechanical means upto 3.00 depth, including providing shoring and strutting, removal of stumps and other deleterious matter, dressing of sides and bottom, filling back the excavation earth to the extent required including the cost of labour & HOM of machineries, as per drawing and technical specification. (P.No.7, I.No.2.24 of PW, P&IWD SR 2016-17)	Cum	72.08	Rupees Seventy Two and Eight Paise Only
48	40.00	KSRRB M200-29. Dismantling of barbed wire fencing / wire mesh fencing including posts, foundation concrete, back filling of pit by manual means including disposal of dismantled material with all lifts and stacking serviceable material and unserviceable material separately complete as per specifications. MORTH Specification No. 202 (P.No.139, I.No.18.54 of PW,P&IWD S.R 2016-17)	Sqm	44.52	Rupees Forty Four and Fifty Two Paise Only

No.	Quantity.	Description	Unit	Rates	
				In Figures	In Words
49	40.00	Supplying and fixing M.S. Rectangular poles made out of 2 equal angles of 65x65x6 mm welded together and fixed in CC (1:2:4) WITH 2 NOS 16mm dia M.S. hold fast rods each of length 25 cms. Including cost of all materials cutting, bending scaffolding wherever necessary, nicely finishing the welded joints with all lead and lifts and as per the directions of the Engineer-in-charge of the work and including providing 2 coats of approved quality paint over one coat of shop painting. (excluding cost of earth work and concrete) (P.No.262, I.No.37.2 of PW,P&I WTD S.R 2016-17)	mtr	868.14	Rupees Eight Hundred Sixty Eight and Fourteen Paise Only
50	84.00	Providing chain link fencing 50mm size of 8 guage properly stretched between rectangular poles and fixed with suitable bolts & nuts, the free ends shall be welded to the pole and block pipe at top and bottom as required including cost of all materials, labour, lead and lifts and as per the directions of the Engineer-in-charge of work including two coats of approved quality paint over one coat of shop paint. (P.No.262, I.No.37.3 of PW,P&I WTD S.R 2016-17)	sqm	698.54	Rupees Six Hundred Ninety Eight and Fifty Four Paise Only
51	80.00	Providing and fixing M.S. Block pipe of 38mm dia, of heavy guage of 14 including removing the bends, cutting the pipe, and fixing pipe in between the two verticle poles (M.S. rectangular poles) and spot welding the chain link with M.S. block pipe including cost of all materials wastage in cutting, and scaffolding wherever necessary with all lead and lift as directed by the Engineer-in-charge of work etc., complete including two coats of approved quality paint over one coat of shop paint. (P.No.262, I.No.37.4 of PW,P&I WTD S.R 2016-17)	mtr	343.44	Rupees Three Hundred Forty Three and Forty Four Paise Only
52	24.00	Providing and fixing M.S. Gate as per Chief Architect Drawing, using 50mm x 50mm 14 guage M.S. hollow pipe frame work bent to ornamental shape as shown in the drawing and 35mm x 6mm and 16 x 16mm Square rods for verticals alternatively spaced at 4cms c/c in two halves and 40mmx6mm M.S. flats for horizontal member and at the top cast iron spikes are provided at alternate vertical members as shown in the drawing etc., complete. All the steel surface should be thoroughly cleaned free of rust and painted with anti corrosive paint (shop paint) etc., complete. The work includes cost of all materials, labour charges for all items of work, hire charges for welding, cutting and grinding equipment, and electricity charges, with lead and lift, loading and unloading charges, etc., complete as per specification (P.No.42, I.No.7.37 of PW,P&I WTD S.R 2016-17))	sqm	3238.30	Rupees Three Thousand Two Hundred Thirty Eight and Thirty Paise Only
53	514.00	KSRRB M800-7. Painting:-Providing and applying two coats of ready-mix paint of approved brand after thorough cleaning of surface to give an even shade complete as per specifications. MORTH Specification No. 803 Painting on Steel Surface (P.No.184, I.No.24.8.1 of PW,P&I WTD S.R 2016-17))	sqm	58.30	Rupees Fifty Eight and Thirty Paise Only
54	40.98	KSRRB 4-1.7 : Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.84cum and fine aggregates @ 0.56cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No.4.2 of PW,P&I WTD S.R 2016-17)	cum	5598.92	Rupees Five Thousand Five Hundred Ninety Eight and Ninety Two Paise Only


E.E. (B.T.P. DIV)

No.	Quantity.	Description	Unit	Rates	
				In Figures	In Words
55	1029.00	KSRRB 2100.-2.2: Earthwork in excavation for foundations of structures as per drawings and technical specifications including, setting out, construction of shoring & bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material complete as per specifications .B. Mechanical means (i) Depth - 3.0 Mtr to 6.0 m depth MORTH specification - No - 304(P.No.216, I.No.27.5 of PW,P&I WTD S.R 2016-17))	cum	159.40	Rupees One Hundred Fifty Nine and Forty Paise Only
56	65.55	KSRRB 2.8 : Providing and Filling in foundation with granite / trap broken metal 100mm. and down size, with approved sand including hand packing, ramming, watering, including cost of all materials and labour with all lead and lift, complete as per specifications, specification. No. KBS (P.No.6, I.No.2.15 of PW,P&I WTD S.R 2016-17))	cum	2283.12	Rupees Two Thousand Two Hundred Eighty Three and Twelve Paise Only
57	41.10	KSRRB M2100-13. Plain / Reinforced Cement Concrete M15 with OPC cement @ 240kgs, with 40mm and down size graded granite metal coarse aggregates @0.84cum and fine aggregates @ 0.56cum in Open Foundation complete as per Drawing and Technical Specifications MORTH Specification No. 1500,1700 & 2100.(P.No.218, I.No.27.24 of PW,P&I WTD S.R 2016-17)	cum	6340.68	Rupees Six Thousand Three Hundred Forty and Sixty Eight Paise Only
58	146.25	Diversion of water course by providing Cofferdams or bunds or islands as may be necessary for piers and abutments foundations, bailing out or pumping water during excavation and until completion etc., complete.(1.50 mtrs depth below L.W.L.)(P.No.264, I.No.37.41.1 of PW,P&I WTD S.R 2016-17)	cum	289.44	Rupees Two Hundred Eighty Nine and Forty Four Paise Only
59	52.50	Diversion of water course by providing Cofferdams or bunds or islands as may be necessary for piers and abutments foundations, bailing out or pumping water during excavation and until completion etc., complete.(beyond 1.50 mtrs depth upto & including 3m)(P.No.264, I.No.37.41.2 of PW,P&I WTD S.R 2016-17)	cum	356.40	Rupees Three Hundred Fifty Six and Forty Paise Only
60	20.80	KSRRB M800-43. Installation of a steel portable barricade with horizontal rail 300 mm wide, 2.5 m in length fitted on a 'A' frame made with 45 x 45 x 5 mm angle iron section, 1.5 m in height, horizontal rail painted (2 coats) with yellow and white stripes, 150 mm in width at an angle of 45°, 'A' frame painted with 2 coats of yellow paint, complete as per IRC:SP-55-2001 complete as per specifications.(P.No.190, Item no 24.44 of PW,P&I WTD S.R 2016-17))	cum	2561.76	Rupees Two Thousand Five Hundred Sixty One and Seventy Six Paise Only
61	77.03	KSRRB M2100-20.2. Plain / Reinforced Cement Concrete in Open Foundation with OPC cement design mix M35 @ 390kgs, with 20mm and down size graded granite metal coarse aggregates @0.68cum and fine aggregates @ 0.45cum, with superplasticiser @3lts confirming to IS9103-1999 Reaffirmed-2008. case II : With Batching Plant, Transit Mixer and Concrete Pump MORTH Specification No. 1500,1700 & 2100(P.No.220, I.No.27.37 of PW,P&I WTD S.R 2016-17)	cum	6967.08	Rupees Six Thousand Nine Hundred Sixty Seven and Eight Paise Only
62	140.94	KSRRB M2200-5.19. Design mix M35 with OPC cement @ 390kgs, with 20mm and down size graded granite metal coarse aggregates @0.68cum and fine aggregates @ 0.45cum, with superplasticiser @3lts confirming to IS9103-1999 Reaffirmed-2008 - ii) For height, upto 5m,(P.No.224, I.No.28.7.18 of PW,P&I WTD S.R 2016-17)	cum	7848.36	Rupees Seven Thousand Eight Hundred Forty Eight and Thirty Six Paise Only

[Signature]

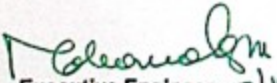
E.E. (BTP. DIV)

No.	Quantity.	Description	Unit	Rates	
				In Figures	In Words
63	40.46	KSRRB M2300-8.1. Furnishing and Placing Reinforced/Prestressed cement concrete in super-structure as per drawing and Technical Specification complete as per specifications. D. 20mm and down size graded granite metal coarse aggregates @0.68cum and fine aggregates @ 0.45cum, with superplasticiser @3lts confirming to IS9103-1999 Reaffirmed-2008, Case - II : Using Batching Plant, Transit Mixer & Concrete Pump MORTH Specification No. 1500,1600 & 1700-Height upto 5 m(P.No.233 , I.No.29.16.1 of PW,P&IWD S.R.S.R 2016-17)	cum	7939 08	Rupees Seven Thousand Nine Hundred Thirty Nine and Eight Paise Only
64	23.75	KSRRB M2200 -6 Supplying , fitting and placing TMT bar Fe 550 reinforcement in sub-structure complete as per drawing & technical specification complete as per the specification . MORTH Specification No.1600 & 2200(P.No.225 , I.No.28.8.3 of PW,P&IWD S.R. 2016-17)	cum	59922 72	Rupees Fifty Nine Thousand Nine Hundred Twenty Two and Seventy Two Paise Only
65	5.46	KSRRB M2300 -14. supplying , fitting and placing TMT bar Fe 550 reinforcement in super-structure complete as per as per drawing & technical specification complete as per the specification . MORTH Specification No.1600.(P.No.238 , I.No.29.29.3 of PW,P&IWD S.R 2016-17))	cum	60885.00	Rupees Sixty Thousand Eight Hundred Eighty Five Only
66	82.50	KSRRB M220 - 8. Providing weep holes in Brick masonry / Plain / Reinforced concrete abutment, wing wall / return wall with 100mm dia AC pipe, extending through the full width of the structure with slope of 1V:20H towards drawing face. Complete as per drawing and Technical specifications complete as per specifications. MORTH Specification No. 2706 & 2200 (P.No.225, I.No.28.10 of PW,P&IWD S.R 2016-17))	cum	181.44	Rupees One Hundred Eighty One and Forty Four Paise Only
67	7.20	KSRRB M2700-4. Providing, fitting and fixing mild steel railing complete as per drawing and Technical Specification complete as per specifications MORTH Specification No. 2703.2, 1900(P.No.246, I.No.32.4 of PW,P&IWD S.R 2016-17))	cum	3139.56	Rupees Three Thousand One Hundred Thirty Nine and Fifty Six Paise Only
68	6.00	KSRRB M2700-5. Drainage Spouts complete as per drawing and Technical specification complete as per specifications MORTH Specification No. 2705(P.No.246, I.No.32.5 of PW,P&IWD S.R 2016-17))	cum	1776.60	Rupees One Thousand Seven Hundred Seventy Six and Sixty Paise Only
69	137.70	KSRRB 2200-9 Filter Media Providing & laying of Filter media With Granular meterails / Stone crushed aggregates satisfying the requirement laid down in clause 2500.4.2.2 of MORTH Specification to a thickness on not less than 600 mm width smaller size towards the soil & bigger size towards wall & provided over the entire surface behind Abutment, Wing wall & return wall to the full height compacted to a firm condition complete as per Drawing & Technical Specifications. Complete as per specification MORTH Specification No. 710.14of IRC: 78& 2200(P.No.225, I.No.28.13 of PW,P&IWD 2016-17))	cum	1399.68	Rupees One Thousand Three Hundred Ninety Nine and Sixty Eight Paise Only
70	405.00	KSRRB 2200-8.1 Back filling behind Abutment, Wing wall & return wall to the full height compacted to a firm condition complete as per Drawing & Technical Specifications. Complete as per specification A. Granular Material MORTH Specification No. 710.14of IRC: 78& 2200. With all Leads & Lift etc & as per the direction of the Engineer Incharge of the Work.(P.No.225, I.No.28.11 of PW,P&IWD S.R 2016-17))	cum	565 92	Rupees Five Hundred Sixty Five and Ninety Two Paise Only

Sl. No.	Quantity.	Description	Unit	Rates	
				In Figures	In Words
71	60.00	KSRRB M2500-11. Construction of flexible apron 1 m thick comprising of loose stone boulders weighing not less than 40 kg beyond curtain wall complete as per specifications MORTH Specification No. 2507.2(P.No.241, I.No.30.14 of PW,P&I WTD S.R.2016-17))	cum	1558.44	Rupees One Thousand Five Hundred Fifty Eight and Forty Four Paise Only
72	18.00	KSRRB 2500 - 5.1 Providing & laying , flooring complete as per and technical specifications laid over cement concrete bedding complete as per specification. A. Rubble Stone laid in CM 1:3 MORTH Specification No. 2505(P.No.240, Item no 30.7 of PW,P&I WTD S.R.2016-17))	cum	4925.88	Rupees Four Thousand Nine Hundred Twenty Five and Eighty Eight Paise Only
73	18.00	KSRRB M2500-10.Curtain wall complete as per drawing and Technical Specifications. B. Cement Concrete Grade M-15 MORTH Specification No. 2507.2(P.No.241, Item no 30.13 of PW,P&I WTD S.R.2016-17))	cum	5630.04	Rupees Five Thousand Six Hundred Thirty and Four Paise Only
74	60.18	KSRRB M200-15.2. Dismantling of existing structures like culverts, Bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications. iii) Dismantling Stone Masonry B. Rubble Stone masonry in cement mortar (P.No.138, I.No.18.27 of PW,P&I WTD SR 2016-17)	cum	359.14	Rupees Three Hundred Fifty Nine and Fourteen Paise Only
75	81.00	KSRRB M400-6.2: Construction of granular sub-base by providing Close graded material, mixing in a mechanical mix plant at OMC, carriage of mixed material to work site, spreading in uniform layers with mortar grader on prepared surface and compacting with vibratory roller to achieve the desired density, complete as per specifications. A Plant Mix method For Grading II Material (P.No.155, I.No.20.4.2 of PW,P&I WTD SR 2016-17)	cum	1665.26	Rupees One Thousand Six Hundred Sixty Five and Twenty Six Paise Only
76	242.73	Providing granite Slabs of Selected quality roughly dressed and fixed in cement mortar (1:6) including fixing curing etc., Complete. 7.5cms thick (P.No.25, I.No.5.31.1 of PW, P&I WTD SR 2016-17)	cum	665.68	Rupees Six Hundred Sixty Five and Sixty Eight Paise Only
77	19315.30	Add cost of Waste Plastic @ 8% of Bitumen weight	kgs	27.00	Rupees Twenty Seven Only


Assistant Engineer
Ward no. 08


Assistant Executive Engineer
Kodlgehalli sub Division


Executive Engineer 3/10
Byatarayanapura Division

ADMINISTRATIVE APPROVAL	
Accorded For Rs. Ten Crores Ten Lakhs only (11 works)	
Head of A/c...	P.3158
Div. Ref. No.	Date 3/10/17
GO. UDD 523 MNY 2017 Btmc Dt: 26/09/17	
AE	EE(BTP) 3/10